



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/726,510	12/01/2000	Sung-Kyu Choi	Q61373	1094

7590 10/01/2004
SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037-3202

EXAMINER

CZEKAJ, DAVID J

ART UNIT	PAPER NUMBER
----------	--------------

2613

3

DATE MAILED: 10/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/726,510

Applicant(s)

CHOI, SUNG-KYU

Examiner

Dave Czekaj

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iverson et al. (5832234), (hereinafter referred to as "Iverson").

Regarding claims 1-3, Iverson discloses an apparatus that relates to block classification schemes for encoding images using block transforms (Iverson: column 1, lines 10-12). This apparatus comprises "comparing frames to detect a sum of absolute pixel differences value" (Iverson: column 5, lines 42-61, wherein the sum of absolute pixel differences value is the SAD, comparing frames is the process of comparing blocks) and "an SAD examiner for generating coding selection information for coding the frame in the intra mode when the SAD value exceeds a predetermined threshold or in the inter mode when the SAD value does not exceed the predetermined threshold" (Iverson: figures 6A-6B, column 9, lines 5-11). Although Iverson fails to show the first and second memories as disclosed, Iverson does show the current and reference frame data being applied as separate inputs to the motion estimator (Iverson: figure 3, item 302). The examiner notes that having the current and reference frame data being applied as separate inputs suggests that the current and reference frame data are stored

in different storage mediums. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to implement the different storage means/memories in order to make the apparatus more efficient by allowing the system to perform more complex operations due to the increase in memory.

3. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jeong (6393060).

Regarding claims 1-3, Jeong discloses an apparatus for coding and decoding low transfer rate video images (Jeong: column 1, lines 7-9). This apparatus comprises "comparing frames to detect an SAD" (Jeong: column 7, lines 37-38, wherein the SAD value is the difference between frames) and "an SAD examiner for generating coding selection information for coding the frame in the intra mode when the SAD value exceeds a predetermined threshold or in the inter mode when the SAD value does not exceed the predetermined threshold" (Jeong: column 7, lines 19-39, wherein the threshold is the value A, the SAD value is the SAD). Although Jeong fails to show the first and second memories as disclosed, Jeong does show one memory for storing the frame data needed for the SAD calculations (Jeong: figure 2). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to take the apparatus disclosed by Jeong and split the one memory into two memories in order to make the apparatus more efficient by allowing the system to perform more complex operations due to the increase in memory.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US-6591015	07-2003	Yasunari et al.
US-6434196	08-2002	Sethuraman et al.
US-20020172282	11-2002	Kato, Motoki
US-5905535	05-1999	Kerdranvat, Michel
US-6259736	07-2001	Chujoh et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dave Czekaj whose telephone number is (703) 305-3418. The examiner can normally be reached on Monday - Friday 9 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (703) 305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2000